

State of Utah

Department of Natural Resources

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August 24, 2004

CERTIFIED RETURN RECEIPT 7099 3400 0016 8896 0709

W. Dan Proctor Unico Incorporated 951 East 830 South Pleasant Grove, Utah 84062

Subject: <u>Fifth Review of Notice of Intention to Commence Large Mining</u>

<u>Operations, Unico Incorporated, Deer Trail Mine, M/031/003, Piute</u>

<u>County, Utah</u>

Dear Mr. Proctor:

The Division has completed our review #5 of your Notice of Intention to Commence Large Mining Operations for the Deer Trail mine, located in Piute County, Utah, which was received April 8, 2004. After reviewing the information, the Division has the following comments that will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading.

Since this plan was received on March 26, 2001, it has gone through five Division reviews with operator's comments. These reviews and comments have resulted in significant changes to the initial plan. As discussed in our August 23, 2004 meeting, the Division requests that Unico submit a revised copy of the Deer Trail Mine reclamation plan incorporating all the changes made to date. Please format your response to this latest review, using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records. Please provide a response to this review by September 24, 2004.

The Division will suspend further review of the Deer Trail Mine Notice of Intention until your response to this letter is received. If you have any questions in



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this regard please contact me, or Lynn Kunzler of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

Daron Haddock
Permit Supervisor

Minerals Regulatory Program

DRH:LK:jb Attachment: Review cc: Mark Lopez, Unico Steve Winslow, USFS

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# REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

#### Unico Incorporated Deer Trail Mine

#### M/031/003

# R647-4-105 - Maps, Drawings & Photographs

# 105.1 Topographic base map, boundaries, pre-act disturbance

A map in the scale of 1"=500' needs to be submitted for the permit area. This map should contain the outlines of each permit area contained in the application. Please include all fences, roads, power lines, substations, etc. that are to be a part of this permit and will be reclaimed at closure. Township, range and sections lines should also be shown. (DJ)

# 105.2 Surface facilities map

The permit area around the three sites contained in this application has never been shown on a map.

Please submit maps of each area showing the outline of the area to be contained in the permit area and all surface facilities and features located within the permit area. The scale of these maps should be a minimum of 1"=100'(DJ)

A reclamation treatments maps of each area should be included with the plan. This map should show areas of the site to receive various reclamation treatments shaded, cross-hatched or color coded to identify which reclamation treatments will be applied. Areas would include: buildings, stationary mining/processing equipment, roads, utilities, topsoil storage areas, waste dumps, and tailings facilities. Reclamation treatments may include ripping, regrading, replacing soil, fertilizing, mulching, or broadcast seeding. (DJ)

#### R647-4-106 - Operation Plan

# 106.3 Estimated acreages disturbed, reclaimed, annually.

A tabulation of the total acreage contained in this application needs to be shown in the plan. (DJ)

# 106.4 Nature of materials mined, waste and estimated tonnages

Please indicate the estimated amount of material that will be placed in the dry stack area. (DJ)

# 106.5 Existing soil types, location, amount

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Please provide a scaled drawing of the soil piles scheduled to be used for final reclamation. This information is necessary to assure that the amount of soil available is sufficient to provide the necessary proposed soil distribution. (DJ)

Our last review requested a soil analysis materials planned to be used for reclamation. This analysis was to include pH, texture, % organic matter, electrical conductivity (EC), cation exchange capacity (CEC), sodium absorption ratio (SAR), total nitrogen, available phosphorus (as  $P_2O_5$ ), and potassium (as $K_2O$ ). The soil analysis submitted only included those parameters above that are underlined. However, given the values for pH, EC and texture, the material submitted for analysis would not be considered as a suitable growth medium. It is recommended that soil materials that were washed onto the upper tailings pond area be salvaged and used for reclamation. You will still need to provide a soils analysis (of all parameters listed above) for this material to determine the need for soil amendments or fertilizer. (LK)

#### 106.6 Plan for protecting & redepositing soils

If the soils described above are planned for use in reclamation, you may either stockpile the needed amount, or designate a portion of this area (that will not be disturbed) that has sufficient soil materials for reclamation. If the latter option is used, you will need to mark the area designating it as topsoil and provide a physical barrier (i.e. berm, fence, etc.) to protect it from further impacts. Soil resources (stockpiled or left in place) will need to be shown on a reclamation/mine map. (LK)

# 106.9 Location & size of ore, waste, tailings, ponds

The map of the milling facility shows a dry stacking area adjacent to mill area. Has the dry stacking of tailings material in this area been approved by Utah Division of Water Quality?

A plan for the reclamation of this dry stacking area needs to be included in the application. (DJ)

The latest submission states that since the dumps in the PTH tunnel area are stable and Unico's reclamation for this area will be to simply mulch, fertilize and seed the dumps. Dump areas affected by Unico's mining operation should be regraded to a minimum slope of 3:1 before the application of the mulch, fertilizer and the application of the seed. (DJ)

# R647-4-107 - Operation Practices

#### 107.1 Public safety & welfare

# 107.1.13 Plugging or capping drill holes

Note: Replacing a valve with a cap on the water well is not considered plugging under Division rules. Please provide plans for properly plugging the well. (DJ)

# 107.1.15 Constructing berms, fences, etc. above highwalls

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The plan states that a 4' fence will be constructed around the tailings pond. A 4' fence is not high enough to protect wildlife in the area. A minimum fence height of 6' is needed. (LK)

### 107.5 Suitable soils removed & stored

Refer to comments under R647-4-106.6. (LK)

## R647-4-109 - Impact Assessment

#### 109.3 Impacts on existing soils resources

Since soil resources have not be salvaged, impacts to this resource exist. Please provide plans to mitigate this impact (i.e. using excess soils from the upper tailing pond area for reclamation). (LK)

#### R647-4-110 - Reclamation Plan

# 110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

The operator has indicated that material contained in a small tailings area near the mill is scheduled to be removed. A road that accesses that base of these tailing is to be upgraded for this purpose. Please include in the plan, reclamation treatments to be applied to these areas. (DJ)

#### 110.5 Revegetation planting program

The latest submittal has raised confusion in the revegetation portion of the plan. The original proposed plan (with the Forest Service) was not appropriate for meeting state standards. The seed mix and rate of seeding, fertilization, and revegetation success standards were all re-negotiated with the Forest Service. The attached seed mix is what the Division had once accepted as the appropriate seed mix. The Forest Service had concurred with this mix as well. Commercial fertilizer was not to be applied since past experience shows that this practice favors weedy plants at the expense of the desirable perennial species (unless soils are very deficient. Data provided to date do not indicate a nutrient (N.P,K) problem. It is likely, however, that soil organic matter is low. This is best alleviated by amending the soil with composted manure (at 5-10 ton per acre). This need for (and rate) for this will be evaluated upon receipt of the soil analysis of the materials to be used for reclamation. It is suggested that for bonding purposes, you plan for 5 ton/acre of composted manure on areas receiving topsoil, and 10 ton per acre for areas receiving substitute soil materials. Reclamation Standards are 70% of the ground cover of the pre-existing vegetation (or surrounding plant communities). This cover standard does not include litter or rock fragments. The revegetation standard for your site would therefore be 28% living vegetation cover (70% of the surrounding cover of 40%). (LK)

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#### **R647-4-111 - Reclamation Practices**

#### 111.8 All roads & pads reclaimed

Please indicate on the reclamation treatments map all roads to be reclaimed upon closure. (DJ)

#### 111.12 Topsoil redistribution

As previously stated in past reviews, the soil resources identified in the notice indicate an average of 10 inches of topsoil. Please be advised that you will need to replace this amount of soil after the area has been regraded. (LK)

# R647-4-112 - Variance

In your latest response, under the variance heading, it states, "we are requesting a variance as to the soil depth". Before the Division can consider, or approve this request, you must first provide all information required for a variance request. At a minimum, a variance request must include the following:

- 1. The Rule citation for which the variance is being requested,
- 2. The variance requested and a description of the area that would be affected by the variance (it may be necessary to provide a map which shows the areas for which a variance is requested),
- 3. Justification for the variance.
- 4. A description of alternate methods or measures to be utilized.

At this time, NO variances have been approved. (LK)

#### R647-4-113 - Surety

The surety does not contain a line item for the construction and installation of the proposed steel door that will be placed on the "E" raise. Please include this item. (DJ)

The plan states that all plumbing used to transport water to the mining and milling operation will be removed upon closure. No acreage is shown in the plan for disturbances associated with the water delivery systems. Please provide this information. (DJ)

There is not a line item in the surety showing the equipment, labor costs and reclamation of these areas disturbed during this removal. Please include these items. (DJ)

The surety should include line items for the removal of the power lines on the site or the chain link fence, sub-station at the PTH tunnel. Please include these items in the surety. (DJ)

Equipment and debris removal is shown as only requiring 5 trips.

Removal of the mill building plus all equipment contained in the building and all equipment at the PTH tunnel will require additional trips to remove. Loader costs to load this material should also be reevaluated. (DJ)

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The Division is unable to evaluate the acreages associated with regrading, ripping and seeding until a map clearly delineating the areas to receive these treatments is received. (DJ)

The surety indicates that 800 CY of topsoil will be placed at the site. Please describe the areas where this soil will be placed and proposed soil depths.

The surety indicates that a total of 10 trips will be required to deliver 800 CY of soil to the site. Delivery of this amount of soil in 10 trips will require a truck capable of carrying 80 tons per load. A semi trailer with pup will average 25-28 CY per load. Also, approximately 16,800 CY of soil is needed for reclamation (1345CY/ac. X 12.5 acres), not the 800 CY used in the surety calculation.

The 1997 cost for the removal of the power line and substation from UP&L was \$3500. Unico should contact them for an updated cost for this removal activity. (DJ)

## **Forest Service Comments:**

Attached to this review are comments the Division received August 6, 2004 from the Forest Service regarding your plan. Please make sure that your response to the Division's review incorporates these comments as well.

Attachment: Seedmix

Forest Service Comments

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# Recommended Revegetation Species List for

# Unico, Inc. Deer Trail Mine M/031/003

#### Prepared 4/01

Common Name	Species Name	*Rate lbs/ac (PLS)
'Durar' hard fescue	Festuca ovina 'durar'	2.0
'whitmar' bluebunch wheatgrass	Agropyron spicatum 'whitman	r' 3.0
'Piute' orchard grass	Dactylis glomerata	0.5
'Hycrest' crested wheatgrass	Agropyron cristatum 'hycrest	' 1.0
Basin wildrye	Elymus cenerius	2.0
'Ladac' alfalfa	Medicago sativa 'ladac'	1.0
Yellow sweetclover	Melilotus officinalis	0.5
Palmer penstemon	Penstemon palmeri	0.5
Small burnet	Sanguisorba minor	2.0
Annual ryegrass	lolium ssp.	2.0
Mountain mahogany	Cercocarpus ledifolius	1.0
Mountain big sagebrush	Artemisia tridentata vaseyana	0.1
Bitterbrush	<u>Purshia</u> <u>tridentata</u>	1.0
Rabbitbrush	Chrysothamnus nauseosus	0.2
Forage kochia	Kochia prostrata	0.5
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	Total	17.3 lbs/ac

<sup>\*</sup>This the recommended broadcast seeding rate.